

Having thus defined the invention, the following is claimed:

1. A welding wire package comprising a drum or box with a central axis, multiple layers of looped welding wire defining a stack wire to be paid out, said stack having an upper ring shaped surface with an outer cylindrical surface and an inner cylindrical surface defining a central bore concentric with said central axis and a flexible permanent magnet retainer ring on top of said upper ring shaped surface, said retainer ring allowing welding wire to be paid from under the ring upwardly from said central bore.
2. A welding wire package as defined in claim 1 wherein said flexible magnet ring has a thickness in the general range of 0.10-0.01 inches.
3. A welding wire package as defined in claim 2 wherein said flexible magnet ring has a magnetic strength of less than 1.0 Megagauss Oersteds.
4. A welding wire package as defined in claim 1 wherein said flexible magnet ring has a magnetic strength of less than 1.0 Megagauss Oersteds.
5. A welding wire package as defined in claim 4 wherein said flexible magnet ring has an inner generally circular edge with a diameter less than the diameter of said inner cylindrical surface of said wire stack.

6. A welding wire package as defined in claim 3 wherein said flexible magnet ring has an inner generally circular edge with a diameter less than the diameter of said inner cylindrical surface of said wire stack.

7. A welding wire package as defined in claim 2 wherein said flexible magnet ring has an inner generally circular edge with a diameter less than the diameter of said inner cylindrical surface of said wire stack

8. A welding wire package as defined in claim 1 wherein said flexible magnet ring has an inner generally circular edge with a diameter less than the diameter of said inner cylindrical surface of said wire stack

9. A welding wire package as defined in claim 8 including a cylindrical core in said bore of said welding wire stack

10. A welding wire package as defined in claim 4 including a cylindrical core in said bore of said welding wire stack

11. A welding wire package as defined in claim 2 including a cylindrical core in said bore of said welding wire stack

12. A welding wire package as defined in claim 1 including a cylindrical core in said bore of said welding wire stack

13. A welding wire package as defined in claim 12 wherein said flexible magnet ring has an outer periphery generally matching said outer cylindrical surface of said wire stack

14. A welding wire package as defined in claim 13 wherein said outer periphery is generally circular.

15. A welding wire package as defined in claim 8 wherein said flexible magnet ring has an outer periphery generally matching said outer cylindrical surface of said wire stack

16. A welding wire package as defined in claim 15 wherein said outer periphery is generally circular.

17. A welding wire package as defined in claim 4 wherein said flexible magnet ring has an outer periphery generally matching said outer cylindrical surface of said wire stack.

18. A welding wire package as defined in claim 17 wherein said outer periphery is generally circular.

19. A welding wire package as defined in claim 2 wherein said flexible magnet ring has an outer periphery generally matching said outer cylindrical surface of said wire stack.

20. A welding wire package as defined in claim 19 wherein said outer periphery is generally circular.

21. A welding wire package as defined in claim 1 wherein said flexible magnet ring has an outer periphery generally matching said outer cylindrical surface of said wire stack.

22. A welding wire package as defined in claim 21 wherein said outer periphery is generally circular.

23. A welding wire package as defined in claim 4 wherein said flexible magnet ring includes ferrite particles in a flexible non-magnetic binder.

24. A welding wire package as defined in claim 3 wherein said flexible magnet ring includes ferrite particles in a flexible non-magnetic binder.

25. A welding wire package as defined in claim 2 wherein said flexible magnet ring includes ferrite particles in a flexible non-magnetic binder.

26. A welding wire package as defined in claim 1 wherein said flexible magnet ring includes ferrite particles in a flexible non-magnetic binder.

27. A retainer ring for use in a drum of looped welding wire said ring being a flat sheet of flexible permanent magnet material with an outer periphery and an inner periphery.

28. A retainer ring as defined in claim 27 wherein said ring has a thickness in the general range of 0.10-0.01 inches.

29. A retainer ring as defined in claim 27 wherein said ring has a magnetic strength of less than 1.0 Megagauss Oersteds.

30. A retainer ring as defined in claim 27 wherein said ring includes ferrite particles in a flexible non-magnetic binder.

31. A retainer ring for use in a drum of looped welding wire, said ring being a flat sheet of permanent magnet material with an outer periphery and an inner periphery.

32. A retainer ring as defined in claim 31 wherein said ring has a thickness in the general range of 0.10-0.01 inches.

33. A retainer ring as defined in claim 31 wherein said ring has a magnetic strength of less than 1.0 Megagauss Oersteds.

34. A retainer ring as defined in claim 31 wherein said ring is flexible and includes ferrite particles in a flexible non-magnetic binder.

35. A method of controlling the payout of a welding wire in a package at a welding operation, said package comprising a stack of multiple layers of looped welding wire, said method including:

- (a) applying a magnetic field to the top of said stack; and,
- (b) pulling said wire from said stack for feeding to said welding operation.

36. A method as defined in claim 35 wherein said applying act is by providing a flexible permanent magnet retainer ring over the top of said stack.

37. A method as defined in claim 35 wherein said applying act is accomplished by an electromagnet.

38. A welding wire package comprising a drum or box with a central axis, multiple layers of looped welding wire defining a stack wire to be paid out, said stack having an upper ring shaped surface with an outer cylindrical surface and an inner cylindrical surface defining a central bore

15 concentric with said central axis and a flexible retainer ring on top of said upper ring shaped surface, said retainer ring allowing welding wire to be paid from under the ring upwardly from said stack.

39. A welding wire package as defined in claim 38 wherein said flexible ring has a thickness in the general range of 0.10-0.01 inches and is polymer.

40. A welding wire package as defined in claim 39 wherein said flexible ring is a permanent magnet sheet.

41. A welding wire package as defined in claim 38 wherein said flexible ring has a thickness in the general range of 0.10-0.01 inches and is rubber.

42. A welding wire package as defined in claim 41 wherein said flexible ring is a permanent magnet sheet.